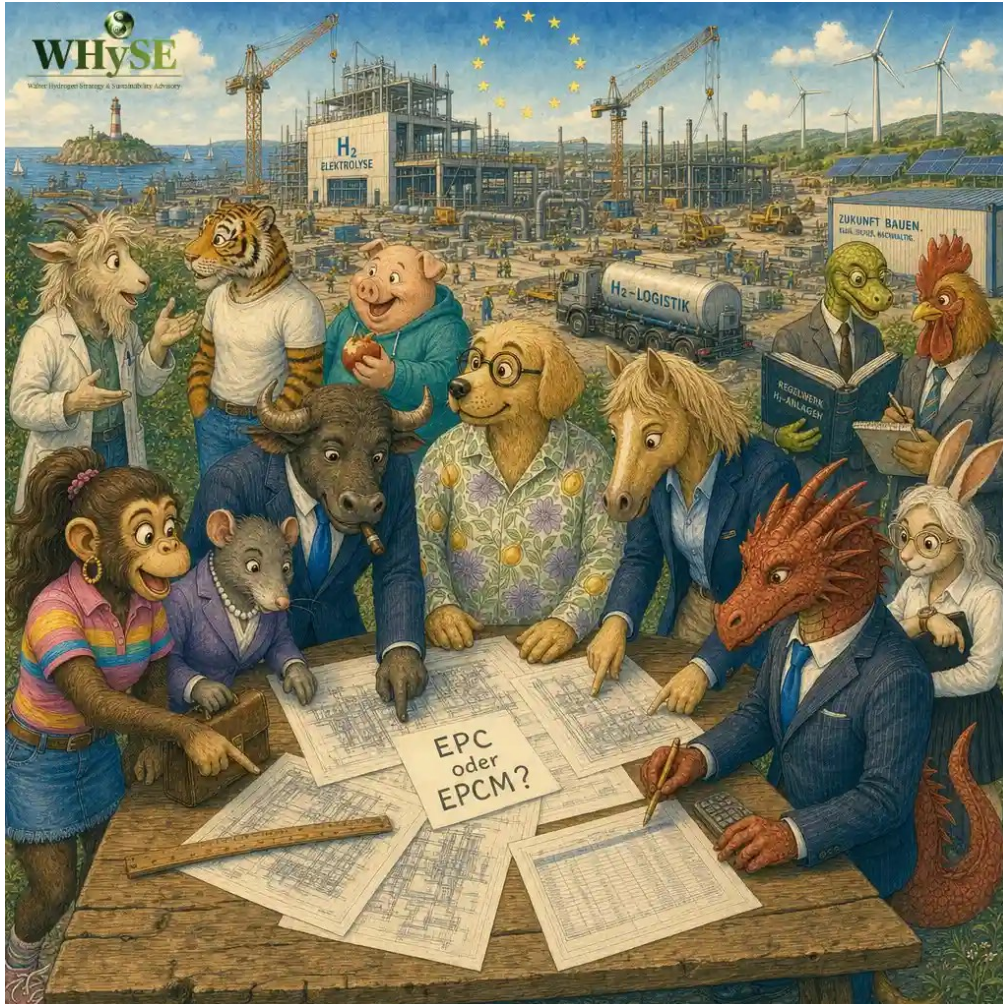


WHySE Compass Landmark 6

EPC(M) - Engineering, Procurement, Construction (Management)



How an M makes all the difference

Monkey comes to the large table and places a note between the construction drawings. It reads: "EPC or EPCM?"

"Dear friends, I have a question," she says. "What is EPC? And why is there sometimes an M added to it?"

Rat looks at Buffalo. Buffalo looks at Horse. Dragon puts his calculator aside. Together, they look from the plans towards the construction site in the H₂ terrain.

"The M looks small," says Dog. "For contracts, interfaces and risks, it makes a big difference."

What does EPC(M) mean?

"Let's start with the three letters shared by both models," says Dog.

E stands for Engineering: planning and designing the plant, including its technical concept, calculations, drawings and specifications.

P stands for Procurement: selecting, purchasing and tracking equipment, materials and services through to delivery.

C stands for Construction: assembling, connecting and testing the components to create a functioning plant.

Monkey looks at the construction site. A hydrogen plant is taking shape between two cranes. Pipework connects the water electrolysis system to the compressor and storage facility.

"So EPC covers the journey from planning to the completed plant?"

"Yes," replies Dog. "The crucial question is who bears contractual responsibility for that journey."

EPC(M) serves as a common umbrella term. The parentheses show that a project can be organised as EPC or EPCM. That same letter M significantly changes the roles of the parties involved.

EPC: Buffalo takes on the agreed complete package

Buffalo pulls the plant layout towards him.

"Under EPC, one company takes on the agreed engineering, procurement and construction services," explains Dog. "This may be a plant engineering company or a general contractor such as Buffalo."

Rat enters into one central contract with Buffalo. Within his agreed scope, Buffalo appoints and coordinates suppliers, specialist companies and subcontractors. Rat gains one central point of contact for many interfaces between design, supply and construction.

"So do I transfer every risk to Buffalo?" asks Rat.

Snake looks up from his contract folder.

"The contract defines Buffalo's responsibilities," he says. "The site, permits, utility connections or information supplied by the client may remain with you."

Dog nods. "EPC means bundled responsibility within clearly agreed boundaries."

Terms such as **turnkey**, **lump-sum price** and **fixed completion date** may form part of an EPC contract. Their precise meaning comes from the scope of work and the contract..

EPCM: Horse plans and coordinates for Rat

Horse lays several drawings side by side.

"What does the M change?" asks Monkey.

"M stands for Management," replies Dog. "Under EPCM, Horse supports Rat as a specialist planner and project manager."

Horse provides the agreed engineering services, prepares procurement and coordinates construction. He monitors costs, schedules, quality and technical interfaces on Rat's behalf.

Rat typically concludes the supply and construction contracts directly with the respective companies.

"Horse coordinates them while I remain their client?" asks Rat.

"Exactly," says Dog. "You stay close to quotations, costs and decisions. You also manage several contracts and carry more responsibility for how they fit together."

Horse remains responsible for his agreed engineering and management services. The M does not turn him into a general contractor delivering the whole plant in his own name.

The difference at a glance

Monkey sketches two paths on her note.

Under **EPC**, one line runs from Rat to Buffalo. Further lines run from Buffalo to suppliers and subcontractors.

Under **EPCM**, one line runs from Rat to Horse. Further lines connect Rat directly with suppliers and construction contractors. Horse coordinates their work on her behalf.

"The construction site may look similar," Monkey realises. "The contractual structure looks fundamentally different."

Feature	EPC	EPCM
Typical contractual relationships	Client ↔ EPC contractor; EPC contractor ↔ suppliers and subcontractors	Client ↔ EPCM consultant; client ↔ individual suppliers and construction contractors
Role of the partner	Takes responsibility for the agreed package of engineering, procurement and construction	Provides engineering, supports procurement and coordinates construction on behalf of the client
Allocation of risk	A larger, bundled share of risk rests with the EPC contractor within the agreed scope	The client holds more direct contractual and interface risks; the EPCM consultant remains responsible for the agreed services
Influence on decisions	The EPC contractor has greater freedom in carrying out the agreed work	The client remains closely involved in contract awards, decisions and changes
Cost structure	Often a lump-sum price that may include the cost of assumed risks; the contract defines the pricing rules	Individual supply and construction costs plus fees for engineering and management
Interfaces	The EPC contractor coordinates interfaces within the agreed scope	The EPCM consultant provides technical and organisational coordination; the client typically holds the direct contracts

Common misconceptions about EPC(M)

“So EPC means a fixed price, turnkey handover and full transfer of risk,” says Monkey.
“EPCM is more flexible and less expensive.”

Snake opens his contract folder.

“Those statements need a closer look,” he says.

Misconception 1: EPC transfers every risk

EPC brings engineering, procurement and construction together under one contractor. Buffalo may assume significant cost, schedule, construction and performance risks. Rat remains responsible for her agreed duties and allocated risks.

“So the risk does not disappear?” asks Dragon.

“It receives a contractual address,” replies Dog. “That address should be clear.”

Misconception 2: EPC automatically means fixed price and turnkey delivery

A lump-sum price, completion date and turnkey handover require specific contractual provisions. The client may still remain responsible for the site, utility connections, permits or preparatory work.

Misconception 3: EPCM is a general contractor with added management

Horse plans and coordinates. Rat typically concludes the individual supply and construction contracts herself.

Horse remains the specialist planner and manager at her side. Buffalo, as EPC contractor, assumes responsibility for the agreed overall package.

Misconception 4: EPCM is automatically more flexible and less expensive

EPCM gives Rat direct influence over contract awards and technical decisions. Changes can still affect costs, schedules and package boundaries.

Under EPC, Buffalo may include assumed risks in his price. Under EPCM, Rat pays for the individual packages and Horse's services. The better commercial fit depends on the project, its maturity and the client organisation.

Why interfaces matter in the H₂ terrain

Goat points towards the water electrolysis system. Tiger follows a pipeline to the storage facility.

A hydrogen plant may include water electrolysis, compression, storage, pipework, power supply and utility connections.

Where does the electrolysis supplier's responsibility end? Who connects the system to the compressor and storage facility? Who verifies their combined performance?

"The chosen project structure becomes visible at these interfaces," says Dog.

Under EPC, Buffalo may combine several packages within his scope. This requires clear objectives and requirements.

Under EPCM, Rat may award the packages directly. Horse helps define package boundaries and coordinates the parties. Rat gains influence and needs expertise, time and clear decisions.

"So the choice needs to fit the project and the client organisation," says Dragon.

Dog nods. "That is the point."

Dog's guidance: five questions before making a decision

Dog places his compass beside Monkey's note.

1. How clearly are the project objective and scope of work defined?
2. How much influence does the client wish to retain over contract awards and technical decisions?
3. What expertise and capacity does the client have to manage several direct contracts?
4. Which party is best placed to manage cost, schedule, performance and procurement risks?
5. Are package boundaries, responsibilities, inspections and acceptance procedures clearly defined?

Rooster raises his notebook. "And who will bring all the documents together?"

"That also needs to be clarified early," replies Dog. "A reliable plant needs complete documentation alongside steel, pipes and cables."

The plain-language translation

EPC means: Rat gives Buffalo the agreed engineering, procurement and construction package. Buffalo brings it together as a complete plant.

EPCM means: Horse plans and coordinates for Rat. Rat appoints the individual companies and stays closer to contracts, decisions and risks.

If you only want to remember one sentence

Under EPC, a general contractor delivers the agreed complete package; under EPCM, a specialist planner pulls the work together while the client manages the individual contracts.

Monkey looks at her note again.

"So the M changes who concludes contracts, manages interfaces and carries risks."

"Exactly," replies Dog. "The contract defines how far each party's responsibility reaches."

Snake closes his folder. Rooster ticks the final box. The animals turn back towards the construction site.

Good plans create a reliable plant when roles, interfaces and risks receive the same care as pipes, foundations and machinery.

Sources and further information

FIDIC: Conditions of Contract for EPC/Turnkey Projects, Second Edition 2017 - Silver Book (amended)

International standard conditions for EPC and turnkey projects.

<https://fidic.org/books/epcturnkey-contract-2nd-ed-2017-silver-book-reprinted-2022-amendments>

FIDIC: Client/Consultant Model Services Agreement, Fifth Edition 2017 - White Book

International model agreement between a client and consulting engineer.

<https://fidic.org/books/clientconsultant-model-services-agreement-5th-ed-2017-white-book>

Country-specific laws and regulations

EPC and EPCM are international project delivery models rather than universally defined statutory contract types. Their interpretation depends on the contracts, the governing law and the mandatory rules at the project location. Relevant national legislation and official guidance should therefore be reviewed for each project.

Note

This WHySE Compass waypoint explains EPC and EPCM in general terms. It does not replace a project-specific technical, commercial or legal assessment, nor advice on individual contracts.

The scope of work, contractual relationships, remuneration, liability and allocation of cost, schedule, performance, procurement and interface risks depend on the specific agreements, the governing law and the mandatory rules at the project location.